Remarks

Applicants thank the Examiner for extending to the undersigned attorney, Ms. Pamela L. Stewart and Mr. Clark L. Bright the courtesy of an in-person interview on Friday, February 11, 2005. The Examiner was requested to approve the Drawing and if possible to rejoin the withdrawn claims. The Examiner was shown a rectangular OLED lamp in the form of a stack of elements as follows: 1) flexible polyethylene naphthalate 0.125 mm thick film, 2) vacuum-evaporated in-situ polymerized acrylate, 3) sputter-deposited transparent $SiAlO_X$ dielectric oxide, 4) vacuum-evaporated in-situ polymerized acrylate, 5) sputter-deposited transparent $SiAlO_X$ dielectric oxide, 6) vacuum-evaporated in-situ polymerized acrylate, 7) vacuum-evaporated transparent conductive tin-doped indium oxide, 8) OLED chemistry, 9) moisture-sensitive calcium cathode, 10) vacuum-evaporated (onto element 11) in-situ polymerized acrylate, 11) sputter-deposited (onto element 12) transparent $SiAlO_X$ dielectric oxide, 12) vacuum-evaporated (onto element 13) in-situ polymerized acrylate, 13) sputter-deposited (onto element 14) transparent $SiAlO_X$ dielectric oxide, 14) vacuum-evaporated (onto element 15) in-situ polymerized acrylate and 15) flexible polyethylene naphthalate 0.125 mm thick film. The Examiner was also shown a rectangular OLED lamp in which elements 1) through 6) were replaced with a glass sheet. The Examiner was advised that additional claims for such structures may be submitted in one or more continuation applications. The lamps were activated using two 1.5V lithium cells placed in series so that the direction of light emission could be seen. The arguments set out below were discussed during the remainder of the interview.

Independent claim 79 has been amended to recite a composite barrier comprising multiple layers of transparent conductive oxide separated by one or more "vacuum-evaporated in-situ polymerized organic layers". Support for this amendment may be found in the Provisional Application at, e.g., page 1 (the Abstract) at lines 6-8 and on page 9. Following entry of this amendment, claims 39, 40, 50, 73-76 and 79-146 will be pending with claims 39, 40, 50, 73-76, 102, 103, 109 and 115-145 having been withdrawn.

This amendment is accompanied by a Supplemental Information Disclosure Statement.

Priority

The Office Action avers that applicant is not entitled to claim the benefit of his November 2, 1998 Provisional Application filing date, on grounds *inter alia* that:

> *"upon a review of the provisional application, it was determined that the instantly claimed invention (and portions of the specification) is not fully supported by the provisional application and hence the Applicant is not afforded the effective date of the provisional application. Specifically, the Examiner notes that the provisional application fails to disclose the polymer layers as layers of organic* ***dielectric*** *polymer as instantly claimed."* (see page 2, numbered paragraph 4, boldface in original).

and that:

> *"First, with regards to the Affinito reference, the Applicant argues that the reference is not prior art because it has an effective filing date after the date of the provisional application of the instant case. The Applicant argues that "Several of the claims are fully supported", citing sections of the provisional application for specific claims. In response, the Examiner first notes that in order for the Applicant to be provided the benefit of the earlier provisional application filing date,* ***all of the claims must be fully supported by the provisional application not "several" of the claims.***" (see pages 5-6, numbered paragraph 7, emphasis added).

Applicant respectfully disagrees. 37 C.F.R. §1.78(a)(4)[1] governs this situation. It merely requires support in the prior-filed provisional application for "at least one claim"

[1] 37 C.F.R. §1.78 Claiming benefit of earlier filing date and cross-references to other applications ...

> (4) A non-provisional application, other than a design patent, or an international application designating the United States of America may claim an invention

in the later-filed application, not for all claims in the later-filed application. Different claims in an application may have different benefit dates[2]. A similar situation may apply with respect to obtaining the benefit of a prior foreign application, see MPEP §201.15, last paragraph.

Reconsideration is thus requested with respect to at least independent claim 79 and dependent claims 80-83. As noted above, claim 79 has been amended to replace the objected-to term "organic dielectric polymer" with the phrase "vacuum-evaporated in-situ polymerized organic layers" as used in the Provisional Application Abstract. Claim 79 is entitled to the Provisional Application's November 2, 1998 filing date. Claims 80-83 are supported in the Provisional Application as noted in applicant's August 18, 2004 Amendment and are likewise entitled to the Provisional Application's filing date.

The Office Action also states that:

"*Further it is noted that the provisional application does not teach or suggest* ***multiple*** *transparent conductive oxide, transparent metal or transparent conductive metal nitride* ***layers separated by a polymer layer*** *as instantly claimed in independent claims 79 and 84. The provisional application discloses the use of a polymer smoothing basecoat layer on the substrate, the use of multilayer dielectric or TCO barriers with PML coatings, and a barrier of alternate PML organic and* Al_2O_y *layers but does not disclose* ***multiple*** *transparent conductive oxide, transparent metal or transparent conductive metal*

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disclosed in one or more prior-filed provisional applications. In order for an application to claim the benefit of one or more prior-filed provisional applications, each prior-filed provisional application must name as an inventor at least one inventor named in the later-filed application and disclose the named inventor's invention claimed in **at least one claim of the later-filed application** in the manner provided by the first paragraph of 35 USC 112" (emphasis added).

[2] See e.g., *In re Hogan and Banks*, 194 USPQ 527 (CCPA 1977); see also the unpublished decision in *Furman v. Cheng*, 59 USPQ2d 1668, 1670 (B.P.A.I. 2001), which is not citable as precedent but which discusses benefit claims under 35 U.S.C. §§119 and 120.

nitride layers separated by a dielectric polymer layer. The Examiner specifically notes that the provisional application is completely silent with regards to metal nitride layers. Hence, as previously noted, the effective date of the instant application is therefore the actual filing date of the parent application, October 18, 1999." (see pages 2-3, numbered paragraph 4, boldface in original).

These statements are not properly applicable to at least claims 79-83, which do not recite metal nitride layers. Applicant thus requests an acknowledgement that at least claims 79-83 are entitled to the benefit of the November 2, 1998 Provisional Application filing date.

Rejection of claims 79-90, 92-97, 100, 104-108, 110-114 and 146 under 35 USC §102(e)

Claims 79-90, 92-97, 100, 104-108, 110-114 and 146 were rejected under 35 USC §102(e) as being anticipated by U.S. Patent No. 6,268,695 B1 (Affinito). Reconsideration is requested. As noted above, at least claims 79-83 have a November 2, 1998 effective filing date. This date is earlier than Affinito's December 16, 1998 filing date and thus at least these claims can not properly be rejected over Affinito.

Turning next to rejected claims 84-90, 92-97, 100, 104-108, 110-114 and 146, the Office Action asserts *inter alia* that:

"The ceramic layer(s) are preferably formed by vacuum deposition of a metal oxide, metal nitride, metal carbide, and are preferably substantially transparent including ***indium tin oxide*** (amorphous, conductive oxide as instantly claimed), *indium oxide, tin oxide, aluminum nitride or silicon nitride, silicon oxide or aluminum oxide (dielectric oxides) (Col. 3, lines 27- 65.)"* (see the Office Action at page 3, numbered paragraph 5; emphasis in original).

and that:

"The Applicant further argues that Affinito fails to teach "conductive" metal oxide layers arguing that Affinito's ceramic layers are stoichiometric ceramic layers that are nonconductive because when ITO is referred to as "ceramic", having the stoichiometric formula as shown and is not said to be conductive, the Applicant

argues that it is assumed to be nonconductive. However, the Examiner respectfully disagrees noting that Affinito first recites the term "metal oxide" and considering Affinito does not recite that the metal oxide is specifically non-conductive, the Examiner takes the position that one having ordinary skill in the art would clearly envisage "conductive" and "non-conductive" metal oxides." (see the Office Action at page 6, numbered paragraph 7).

Applicant respectfully disagrees. Affinito does not disclose "amorphous" indium tin oxide, "conductive" indium tin oxide or "conductive metal oxide". Affinito refers to indium tin oxide as one of a class of "ceramic" layer materials (see e.g., col. 3, lines 54-65) but does not say that his ceramics are amorphous or conductive.

A ceramic metal oxide layer might be deposited in a fashion that could provide a conductive layer but to do so special measures must be employed. For example the Provisional Application discusses the making of conductive metal oxide layers using measures such as the formation of amorphous layers, formation of oxygen-deficient (*viz.*, non-stoichiometric) layers, use of mild substrate heating and use of a hydrogen-containing plasma (see e.g., pages 1, 5, 8 and 11). Affinito does not discuss these factors and does not show formation of a conductive metal oxide layer. This is further demonstrated by Affinito's absence of any discussion or tests regarding the conductivity or resistivity of his ceramic layers (compare applicant's data, see e.g. Provisional Application pages 11, 12, 14 and 17-23). Also, Affinito says that "**Clearly the function of the foundation and cover** is to prevent environmental constituents including but not limited to water, oxygen and combinations thereof from reaching the OLED" (see e.g., col. 4, lines 7-10, emphasis added). This quoted statement makes no mention of any conductive function. Instead, it speaks solely of "the" function. Although the Office Action asserts that "one having ordinary skill in the art would clearly envisage "conductive" and "non-conductive" metal oxides", Affinito's own words indicate that Affinito (who clearly is *not* a person having ordinary skill in the art) did not envisage conductive metal oxides. When Affinito requires a conductive element in his device, he separately forms first and second electrodes, see e.g., col. 4, lines 30-39). Thus for at least these reasons, Affinito does not

disclose (and a person having ordinary skill in the art who reviewed Affinito would not envisage) a barrier comprising a layer of transparent "conductive" metal oxide.

The Office Action also asserts:

"Affinito further recites the use of "indium tin oxide (ITO)" at Col. 3, line 57, and again at line 63 but this time with "ITO, In2O3+SnO2" in parenthesis wherein one could argue that the parenthetic phrase refers to two species of indium tin oxide - 1) tin doped indium oxide or ITO as commonly abbreviated in the art, and 2) the undoped stoichiometric mixture of indium oxide and tin oxide. Hence, the Examiner argues that the section at Col. 3, lines 54-65 does not imply that the ITO is non-conductive as argued by the Applicant and that the reference, taken it is broadest interpretation, clearly provides a teaching of ITO in general wherein one skilled in the art would clearly envisage conductive ITO given that the abbreviation "ITO" in the art encompasses "tin doped indium oxide" (see the Office Action at pages 6-7, numbered paragraph 7).

Applicant respectfully disagrees. Affinito does not use the abbreviation "ITO" to refer to "tin doped indium oxide". He first uses the abbreviation "ITO" at col. 3, line 57 to refer to "indium tin oxide" and never thereafter varies his usage. When Affinito refers elsewhere in the same col. 3 paragraph to species that might exist in non-stoichiometric or stoichiometric forms, he does so by reciting them both, separating them with the word "or", and using a formula for the stoichiometric form (e.g., "silica or silicon oxide (SiO_2)"; "alumina or aluminum oxide (Al_2O_3)", see col. 3, lines 60-61). If two species were referred to as postulated in the Office Action then Affinito *might* have mentioned "indium doped tin oxide or indium tin oxide (In_2O_3+SnO_2)" or even better yet "conductive indium doped tin oxide or indium tin oxide (In_2O_3+SnO_2)" but that is not what his disclosure says. Affinito referred only to "indium tin oxide (ITO, In_2O_3+SnO_2)", using a different format than he used when discussing species that might exist in non-stoichiometric or stoichiometric forms. Affinito should be read as printed and not rewritten to change his meaning. To anticipate a claim, every element of the claimed invention must be literally present, arranged as in the claim, in as complete detail as is contained in the patent claim, see *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9

USPQ2d 1913, 1920 (Fed. Cir. 1989) and MPEP §2131. Affinito does not disclose (and a person having ordinary skill in the art who reviewed Affinito would not envisage) a barrier comprising a layer of transparent "conductive" metal oxide.

The Office Action also asserts:

"Further, the Examiner notes that ITO having the stoichiometric formula shown would still provide some level of conductivity, as well as the other metal oxides taught by Affinito, given that the instant claims and the specification provide no definition of the required level of conductivity or for that matter, what time of conductivity is meant by the broad term "conductive" in the claims (Refer to Itoh et al, USPN 4,537,814, which teaches a ceramics coating layer that may be a conductive transparent ceramic coating layer such as indium tin oxide composed of indium oxide including tin oxide for 5%, wherein the reference specifically refers to the conductive indium tin oxide as indium oxide with tin oxide as opposed to tin-doped indium oxide.) Lastly, the Examiner notes that the term "ceramic" when referring to a metal oxide does not imply that the metal oxide is not conductive and refers the Applicant to references which utilize conductive ceramics (Ali et al, USPN 5,356,947 or Itoh et al.)"

Applicant respectfully disagrees. As to the level and kind of conductivity, applicant's written description clearly states that "For a transparent electrode, conductivity varies with display technology and addressing method", provides surface resistivity guidelines for various display technologies and provides surface resistivity data obtained using sheet resistance measurements such as are commonly employed in the art (see e.g., Application Serial No. 09/419,870 at page 18, lines 5-8; see also page 15, lines 26-31).

As to the cited Itoh et al. reference, it actually reinforces applicant's arguments concerning Affinito's disclosure. Itoh et al. first mention indium tin oxide at col. 1, lines 49-50. When Itoh et al. say that their "ceramics coating layer may be such a conductive transparent one as indium tin oxide composed of indium oxide including tin oxide for 5%" (see e.g., col. 1, lines 48-51), they appear to be referring (in language that may be less stilted in the original Japanese) to a form of tin-doped indium oxide. Itoh et al. do not simply say "ceramics", "indium tin oxide" or "ITO" in hopes that a reader will assume

they mean a "conductive ceramic". Instead, Itoh et al. expressly say that their coating is a conductive ceramic, describe a specific form of indium oxide containing 5% tin oxide, and provide sheet resistance measurements for their working examples (see e.g. Embodiment 1 at col. 2, lines 45-48 and Embodiment 2 at col. 3, lines 18-23 which are respectively made from an indium oxide/tin oxide or indium/tin target).

The cited Ali et al. reference likewise reinforces applicant's arguments. Ali et al. first mention indium tin oxide at col. 9, lines 57-58. When Ali et al. say that "Suitable conductive electrodes comprise conductive ceramics such as indium tin oxide and conductive metals such as nickel, copper, aluminum, gold, and the like" (see e.g., col. 9, lines 56-59), they do not simply say "ceramics", "indium tin oxide" or "ITO" in hopes that a reader will assume they mean a "conductive ceramic". Instead, Ali et al. expressly say that their electrode is a conductive ceramic and provide sheet resistance measurements for their applicable working example (see e.g., Example 32 at col. 17, lines 47-56).

Patent No. 5,510,173 (Pass et al., cited on the enclosed Supplemental Information Disclosure Statement) similarly reinforces applicant's arguments. Pass et al. discusses thin films having a second layer "made up of dielectric based on indium and tin" and preferably a dielectric oxide of indium and tin (see e.g., the Abstract and col. 4, lines 13-30). Pass et al. also discuss sputtering such second layer (see e.g., col. 7, lines 38-61) and do not say that their process produces a conductive second layer.

Applicant accordingly requests an acknowledgement that Affinito does not disclose (and a person having ordinary skill in the art who reviewed Affinito would not envisage) a barrier comprising a layer of transparent "conductive" metal oxide.

Affinito also does not disclose barriers of "transparent metal" or "transparent conductive metal nitride" as recited in rejected claims 84-90, 92-97, 104-108, 110-114 or 146. As to a transparent metal layer, applicant respectfully disagrees with the Office Action's assertion (made with respect to the separately provided 35 U.S.C. §103(a) rejection of claims including claim 101) that:

> "*the transparent metal oxide and/or metal nitride layers taught by Affinito read upon the general term "transparent metal layers" as in instant Claim 101*" (see the Office Action at page 5, numbered paragraph 6).

The issue is actually whether applicant's claim language may read on Affinito, not the other way around. A claim such as applicant's claim 84 which separately recites "transparent conductive oxide, transparent metal, or transparent conductive metal nitride" distinguishes among these recited terms. Affinito does not show a barrier having a transparent metal layer. This is in fact conceded in the Office Action when it says that:

> "*Affinito does not teach the incorporation of a transparent metal layer or metallic film other than as an oxide, nitride, carbide or oxynitride.*" (see the Office Action at page 5, numbered paragraph 6).

As to a transparent conductive metal nitride layer, Affinito does not disclose (for essentially the same reasons as already given above with respect to applicant's transparent conductive metal oxide layer) that his metal nitride layers could be conductive. He only says that they may be "ceramic" layers and only describes them as being stoichiometric (see e.g., col. 3, lines 54-65 and the identified materials "aluminum nitride (AlN)", "silicon nitride (SiN)" and "silicon oxynitride (SiON)"). The Office Action itself refers to Affinito's aluminum nitride or silicon nitride as "*dielectric oxides*" (see the Office Action at page 3, last two lines, and thus expressly assumes that Affinito's metal nitrides are dielectric and nonconductive.

The Office action also asserts:

> "*Affinito specifically teaches an example comprising the following structure: 150 substrate/142 polymer/144 ceramic/132 polymer/134 ceramic/136 polymer/160 OLED/142 polymer/144 ceramic/132 polymer/134 ceramic/136 polymer which reads upon the instantly claimed invention including the limitations with respect to a barrier layer on both sides of the electronic device, an acrylic hardcoat, a barrier between the substrate or device and a layer of organic polymer,* ***an amorphous layer****, dielectric polymer layer is crosslinked, barrier between substrate and device, organic polymer layer between substrate or device and barrier or over barrier, a barrier with one or more pairs of organic dielectric polymer and* ***transparent conductive oxide*** *(Figure 2, Col. 2-3.)* (see the Office Action at page 4, numbered paragraph 5; emphasis added).

Applicant respectfully disagrees. Affinito discloses neither an "amorphous" layer nor a layer of "transparent conductive oxide" for the reasons already indicated above.

The Office action also asserts:

"With respect to Claims 110-111, the Examiner takes the position that the oxygen permeability and water vapor permeability of the invention taught by Affinito would inherently be within the instantly claimed ranges given that the materials are the same as the instant invention and ***the layers are produced by the same method as the instant invention.***" (see the Office Action at page 4, numbered paragraph 5; emphasis added).

Applicant respectfully disagrees. Affinito does not show a method for depositing a barrier having a layer of transparent conductive oxide, transparent metal, or transparent conductive metal nitride, and does not show layers "produced by the same method as the instant invention".

Applicant accordingly requests withdrawal of the 35 USC §102(e) rejection of claims 79-90, 92-97, 100, 104-108, 110-114 and 146 as being anticipated by Affinito.

Rejection of Claims 91, 98, 99 and 101 under 35 U.S.C. §103(a)

Claims 91, 98, 99 and 101 were rejected under 35 U.S.C. §103(a) as being unpatentable over Affinito in view of U.S. Patent Application Publication No. 2003/0184222 A1 (Nilsson et al.), on grounds *inter alia* that:

"Though Affinito teaches that the ceramic layer may be formed by transparent conductive or dielectric oxides and nitrides and combinations thereof, Affinito does not specifically teach that the ceramic layer is formed by a three layer configuration as in instant Claim 91 or an additional dielectric oxide/nitride layer in combination with the conductive oxide layers as in instant Claims 98-99 and 101. However, given that Affinito teach that the ceramic layer(s) may be produced by any of these materials or combinations thereof, and that multiple ceramic layers may be provided, it would have been obvious to one having ordinary skill in the art at the time of the invention to utilize any combination of these materials or any combination of layers of these materials in producing the

invention taught by Affinito given the reasonable expectation of success" (see the Office Action at pages 4-5, numbered paragraph 6).

and that:

"In terms of Claims 91, 98, 99 and 101, the Applicant argues that Affinito's statement with regards to the ceramic layers being formed from "combinations thereof' refers to a combination of ceramics in a layer not that ceramic layers of different materials may be combined in any order. However, the Examiner respectfully disagrees and believes that the Applicant may be providing their own limited interpretation of the teachings of Affinito. Affinito states, "The first and/or second ceramic layer(s) may be any ceramic including but not limited to metal oxide, metal nitride ... indium tin oxide (ITO) and combinations thereof." Hence, this sentence, even without the phrase "and combinations thereof', clearly states that the first ceramic layer may be selected from any of these materials, and that second ceramic layer may also be selected from any of these materials. This sentence and the remaining paragraph do not state that the two ceramic layers must be of the same single material or same mixed composition and on the contrary, actually implies for the term "and/or" that the two layers, independent of one another, may be formed from any of the suitable materials cited or combinations thereof" (see the Office Action at pages 7-8, numbered paragraph 8).

Reconsideration is requested. No proper basis has been provided for taking as a "given" the asserted "reasonable expectation of success". Success for what purpose? Affinito says nothing regarding an "optically enhanced three layer configuration" as recited in rejected claims 91 and 98-99, whose advantages are discussed by applicant at, e.g., page 5, lines 23-27, page 18, lines 19-24 and Table 1 at page 19. Note also that claims 91, 98 and 99 recite an optically enhanced three layer configuration comprising "adjacent layers" having various structures. The Office Action argues that applicant's recited three layer configurations may be derived from Affinito's first and second ceramic layers and his col. 3, line 65 reference to "combinations thereof". Affinito's first and second ceramic layers are on opposing sides of an OLED structure and are not adjacent layers

(see e.g., Fig. 1 and col. 4, lines 21-46). Even in Affinito's embodiment employing an "intermediate ceramic layer", the ceramic layers are always separated by a polymer layer and are not adjacent layers (see e.g., col. 2, line 65 through col. 3, line 12 and Fig. 2; note that a certificate of correction stipulates that "Fig. 1" in this passage should be "Fig. 2").

As to rejected claim 101, it recites "one or more transparent metal barrier layers". As pointed out above, Affinito does not disclose barriers of "transparent metal".

The Office Action also asserts:

> *"Further, though the transparent metal oxide and/or metal nitride layers taught by Affinito read upon the general term "transparent metal layers" as in instant Claim 101, Affinito does not teach the incorporation of a transparent metal layer or metallic film other than as an oxide, nitride, carbide or oxynitride. However, Nilsson et al teach that a transparent barrier film for encapsulating and protecting polymer-based electronic devices such as polymer-based light emitting devices are preferably provided with a thin nonreactive metal layer such as aluminum in addition to one or more nitride layers to provide improved barrier properties to the protective film and hence, it would have been obvious to one having ordinary skill in the art at the time of the invention to incorporate a transparent metal layer into the barrier composite taught by Affinito to provide improved barrier properties."* (see the Office Action at page 5, numbered paragraph 6).

and that:

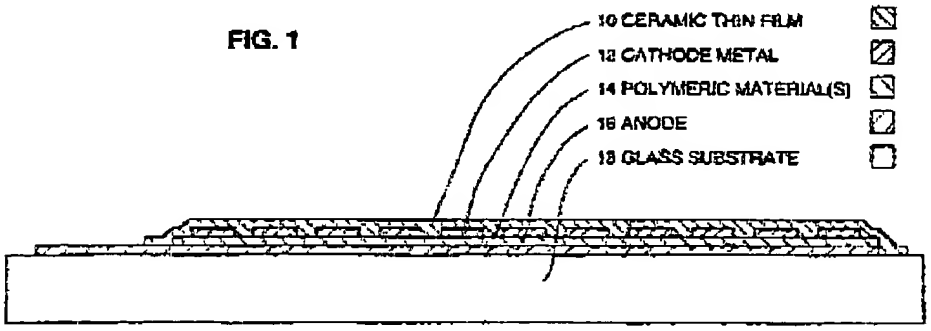
> *"With respect to Nilsson et al, the Examiner notes that the Applicant's arguments are not directed to the element or teaching of Nilsson et al that the Examiner has replied upon in the reference for the rejection and hence it is assumed that the Applicant does not disagree with the Examiner's reasoning"* (see the Office Action at page 8, numbered paragraph 8).

Reconsideration is requested. As to rejected claims 91, 98 and 99, even if Affinito et al. and Nilsson et al. were combined as proposed in the Office Action, the result would not provide the optically enhanced **three** layer configuration of adjacent layers recited in

these claims. As noted above, Affinito et al.'s ceramic layers are separated by polymer layers and are not adjacent. Nilsson et al. refer to depositing over their entire device a two layer "protective seal" made from a "thin film of a non-reactive metal" and a "thin film comprising an inorganic refractory material" (see e.g. paragraph 0013). This forms a two layer structure which is said to be preferred (see e.g. paragraph 0013). Nilsson et al. do not suggest an optically enhanced three layer configuration of adjacent layers such as is recited in claims 91 and 98-99, and would not provide such a configuration even if combined with Affinito. Applicant notes in passing that the soldered frame structure referred to at Nilsson et al, paragraph 0017 is not such an optically enhanced three layer configuration. Whether taken alone or in combination with Affinito, Nilsson et al. do not describe a device as recited in rejected claims 91, 98 and 99.

As to rejected claim 101, Nilsson et al. does not describe "transparent metal barrier layers" or "transparent metal nitride barrier layers". In Nilsson et al.'s devices, the cathode is typically opaque. Emitted light exits the device by traveling through the anode layer and the underlying glass substrate (viz., downward through anode **16** and glass substrate **18** in Fig. 1, reproduced below:

FIG. 1



Nilsson et al.'s ceramic thin film protective seal **10** is not said to be transparent, would not need to be transparent and if transparent might undesirably reduce device contrast. Nilsson et al. say that they form a "thin" protective seal but also say that they do not significantly increase the device thickness (see e.g., paragraph 0011). Nilsson et al. do not say that their protective seal should be so thin as to be transparent. Applicant notes in this regard that the >100 nm thick aluminum layer thickness referred to in Nilsson et

al. paragraph 0040 would not form a transparent layer. If desired by the Examiner applicant can submit a suitable declaration demonstrating this using optical modeling. Whether taken alone or in combination with Affinito, Nilsson et al. do not describe a device as recited in rejected claim 101.

Applicant accordingly 35 USC §103(a) rejection of claims 91, 98-99 and 101 as being unpatentable over Affinito in view of Nilsson et al.

Conclusion

Applicant has made an earnest effort to address the Office Action's arguments. The cited Affinito reference does not disclose conductive metal oxide, conductive metal or conductive metal nitride layers and does not anticipate the devices of claims 79-90, 92-97, 104-108, 110-114 or 146. The cited Nilsson et al. reference does not disclose or suggest the optically enhanced three layer configuration of adjacent layers recited in rejected claims 91, 98 and 99 and would not do so even if combined with Affinito. Nilsson et al. also do not disclose or suggest transparent metal barrier layers or transparent metal nitride barrier layers as recited in rejected claim 101 and would not do so even if combined with Affinito. Withdrawal of the rejections is accordingly requested. The Examiner is also encouraged to call the undersigned attorney if there are any questions regarding this application.

Respectfully submitted on behalf of
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